Notice of Allowability	Application No.	Applicant(s)	
	09/824,969	KUMATA, ICHIRO	
	Examiner	Art Unit	
	Lawrence B Williams	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *15 November 2004*.

2. ☒ The allowed claim(s) is/are *1,3-5,7-11,13-14, 16-21, 24-25, renubered as 1, 2-4, 5-9, 10-11, 12-17, 18-19*.

3. ☒ The drawings filed on *03 April 2001* are accepted by the Examiner.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas F. Presson on 25 January 2005.

The application has been amended as follows:

a.) In line 13 of claim 1, delete the period after ".... inverted data" and add "; and wherein, as said synchronization data, said synchronization data generating circuit generates data whose value changes two or more times within a period in which the level of the clock signal is constant, that is, from a rising edge to a next falling edge, or from a falling edge to a next rising edge of said clock signal. "

b.) Cancel claim 6.

c.) In line 1 of claim 7, delete the phrase "claim 6" and replace with "claim 1".

d.) In line 1 of claim 8, delete the phrase "claim 6" and replace with "claim 1".

e.) In line 12 of claim 10, delete the period after ".... inverted data"; and add "; and wherein, as said synchronization data, said synchronization data generating circuit generates data whose value changes two or more times within a period in which the level of the clock signal is constant, that is, from a rising edge to a next falling edge, or from a falling edge to a next rising edge of said clock signal. "

f.) In line 12 of claim 11, delete the period after ".... parallel data"; and add "; and wherein, as said synchronization data, said synchronization data generating circuit generates data whose value changes two or more times within a period in which the level of the clock signal is constant, that is, from a rising edge to a next falling edge, or from a falling edge to a next rising edge of the clock signal. "

g.) Cancel claim 15.

h.) In line 11 of claim 16, delete the period after ".... parallel data"; and add "; and wherein said detection step detects data whose value changes two or more times within a period in which the level of the clock signal is constant, that is, from a rising edge to a next falling edge, or from a falling edge to a next rising edge of said clock signal. "

i.) In line 23 of claim 17, delete the period after ".... parallel data"; and add "; and wherein when synchronized serial data is transmitted by said data transmitting circuit, as said synchronization data, said synchronization data generating circuit of said transmitting circuit generates data whose value changes two or more times within said period in which the level of a clock signal is constant.

j.) Cancel claim 22.

k.) Cancel claim 23.

l.) In line 1 of claim 24, delete the phrase "claim 22" and replace with "claim 17".

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: The instant application discloses a method and apparatus for frame synchronization serial data transmission. A search of prior art records has failed to disclose a method and apparatus comprising "wherein, as said synchronization data, said synchronization data generating circuit generates data whose value changes two or more times within a period in which the level of the clock signal is constant, that is, from a rising edge to a next falling edge, or from a falling edge to a next rising edge of said clock signal" as disclosed in claims 1, 10. Nor does the prior teach a receiving circuit "wherein said synchronization data detection circuit detects data whose value changes two or more times within a period in which the level of the clock signal is constant, that is, from a rising edge to a next falling edge, or from a falling edge to a next rising edge of the clock signal " or "wherein said detection step detects data whose value changes two or more times within a period in which the level of the clock signal is constant, that is, from a rising edge to a next falling edge, or from a falling edge to a next rising edge of said clock signal" or "wherein when synchronized serial data is transmitted by said data transmitting circuit, as said synchronization data, said synchronization data generating circuit of said transmitting circuit generates data whose value changes two or more times within said period in which the level of a clock signal is constant" as disclosed in claims 11, 16 and 17 respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

a.) Mauch et al. discloses in US Patent 3,685,012 Method and Apparatus for Processing Data.

b.) Kondo et al. discloses in US Patent 4,894,819 Data Transmission Method in Optical Star Network and Optical Star Network and Optical Star Network System for Realizing the Same.

c.) Szczepanek et al. discloses in US Patent 4,674,086 Token Ring Access Control Protocol Circuit.

d.) Yamada et al. discloses in US Patent 5,892,384 Timing Signal Generation Circuit.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw
January 25, 2005

Amanda Le
AMANDA T. LE
PRIMARY EXAMINER